Work Orde		0098	/ 1	/	*990	98*							Page 1	
Item ID: Revision ID:	D4016-1.		ON	A	Accept	*N900	040	100)* s	etup S		*NS	S1*	
Item Name:	Hinge Half, F	Base /	10							5	Stop	*N:	S2*	
Start Date: Required Date:	3/27/13 3/27/13	Start Qty: 12.00 Req'd Qty: 2.00		*12* *12*		Cust Item II Customer:	D:							
Reference:			٠	. ,					_				V	
Approvals:	Process Pl	an:	Date: 13	-03-28	Tooling:	Da	ite:	- 	R		tart Stop	*NI	R1*	٠.
	QC:		_ Date:		`SPC (Y/N):	Da	ite:			~	· F	*NI	R2*	
Sequence ID/ Work Center II)	Operation Description		,	Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty		Reject Number	Insp. Stamp	
Draw Nbr	Re	vision Nbr							* -					•
D4016	A							h/_						-
100		Cut blanks as per folio			0.00		Į.	Par D	AS.	٠			,,,	
100 Bandsaw		Memo			0.00		Ü	169 &	8 ET		13	-04.	x) 10-	70)
Jeaspa Bandsaw		CUT BLAN	IK 1.00" LONG	Ĵ	1	•				,				
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110 HAAS I		Memo			0.00			89	0-8921		(`	3- o ^c	1-05	
HAAS CNC vertical	l machine #1			O FA869 ANI	D DWG					•			(P.	10)

.

DEBURR

NCR:	Yes	/	No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA:	MZ	Date:	•		,
, -	~//	13/04/00	. \$:	g.Š.	•
Closed:	17	∠Date: (2)	il 10		

	_										QA Closed:	Dat	e: (3)4/10
Work Orde	er:	9	900	98		DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	1/(. /
Part N NCR N						Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root Cause		ate	Step	Qty		ption of work order update or Non-conformance		nitial ief Eng		tion ription	Sign & Date _{4.0}	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material	_	- 1		×1	.875 .854	"dimension measures " OII" under nee Speak took onen	S	28 6 28 6 28 6 20 6 20 6 20 6 20 6 20 6 20 6 20 6 20	ALL OTHER D	MS OK. DEVLATION.	13-04°5	008 008 008 004 07	(DAS) 16 Sloylos
						F	AUL	T CATE	GORY	•			
Landir	Cen	iding itre Not	Concer	ntric to (D/S	BOM/Route		Grain Hardwa			Ovalized Over/Under	tolerance	Pressure/Forced Temperature/Cure
-	Cracks Crushed/Crimped Cuffs				Broken/Damaged Burrs Contamination		Instructi Mainte		Unclear	Part Incorred Part Lost/Mi Part Moved	ssing	Weld Wrong Stock Pulled	
	Heat Treat Inspection Strip in Tube		Countersink Cut Too Short	<u></u>	Mislabe Misread			Positioned V Power Loss/		Other			
			Drill Holes Drawing	+	Offset	alibration							
			Finish	-	1			4					
			Folio	H	Out of Sequence Outside Dimensions								

Revision ID:											
Revision ID:					*990	<u> </u>					Page 2
Required Date: 3/27/13 Req'd Qty: 12.00 *12* Customer:	Item ID: Revision ID: Item Name:			. :	Accept	*N90004	0100*	Setup			•
Approvals: Process Plan: Date: Tooling: Date: Stop * NR 1* QC: Date: SPC (Y/N): Date: * NR 2* Sequence ID/ Work Center ID	7										
Approvals: Process Plan: Date: Tooling: Date: SPC (Y/N): Date: Stop *NR2* Sequence ID/ Work Center ID	Reference:				,			Run	Start	***) 1 *
Sequence ID/ Work Center ID Description QC2- Inspect parts off machine FAI/FAIB Operation Run Hours Operation	Approvals:	Process	Plan:	Date:	_ Tooling:	Date:			Ston	INK	. I
Work Center ID Description QC2- Inspect parts off machine FAI/FAIB 0.00 *120 CQC	,e	QC:		Date:	_ SPC (Y/N):	Date:			жор	*NR	!2*
QC Memo 0.00 Quality Control 130 QC8- Inspect parts - second check 0.00 *130* QC8- Inspect parts - second check 0.00 D. = 13 04 07 20 08 08 08 08 08 08 08	Sequence ID/ Work Center I	D			-	Tool ID Too	₁€ode Otv				•
QC	120		QC2- Inspect parts off ma	chine FAI/FAIB	0.00		ago of OAS			,	
130			Memo		0.00		89 UZ /	<u>·</u>	T	3 -54 ·	-09 (x
$\frac{1}{20}$	130		QC8- Inspect parts - secon	nd check	0.00	h = 13/04/07	0		/		
			Marca		0.00	13/2/191	20		P		08

160

160
Packaging

Quality Control

Packaging

Identify as per dwg & Stock Location:_

0.00

0.00

											DQA:	Date	:
NCR: Y	es /	No				WORK ORDER NON-	COI	NFOR	MANCE / UPI	DATE			of the P
											QA Closed:	Date	•
Work Orde	r:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	o					Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing	-4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	lo					Work Order Update	_		Large Fab	Composite	, Rec/stor	Supplier	
Root Cause		Date	Step	Qty		ription of work order update or Non-conformance	- 1	Initial nief Eng		ion iption	Sign & Date	Verification	QC Inspector
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]	Ce	ntre No	ot Concer	ntric to	o/s	BOM/Route	L	Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cr	acks				Broken/Damaged	L	Inspecti	on incomplete		Part Incorred	ct	Weld -
	Cr	ushed/0	Crimped			Burrs		Instruct	ions Incomplete/U	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
ļ	Cı	ıffs			<u> </u>	Contamination		Mainte	nance		Part Moved		
]	Heat Treat Countersink						L	Mislabe	led		Positioned V	Vrong	_
ļ	Inspection Strip in Tube Cut Too Short						Misread	1		Power Loss/	Surge	Other	
	Ripples in Bend Drill Holes					Drill Holes	Offset						
	Torque Waves in Extrusion Drawing					Drawing		Out of 0	Calibration				
	Turning Sequence Finish Out of Sequence												

Outside Dimensions

Wave/Twist in Tube

Folio

Work Ord March-28-13				*990					Page 3			
Item ID: Revision ID: Item Name:	D4016-1 Hinge Half,	Base		Accept	*N900	040	100)*	Setup Sta			S1* S2*
Start Date: Required Date Reference:	3/27/13 e: 3/27/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	D:						
Approvals:	Process P	Plan:	Date:	Tooling: SPC (Y/N):		ate:				art top	*N *N	R1* R2*
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty		eject umber	Insp. Stamp

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

170

170

Quality Control

ABON'S

NICD.	V	,	B.I
NCR:	Yes	/	Nο

			٠									DQA:	Da	te:	
NCR:	es/	/ No				WORK ORDER NON	l-CO	NFORI	MANCE / UI	PDATE	0	(A Closed:	: Da	te.	.e. 1
Maril Ord						DISPOSITION		<u> </u>		AGAINST			/PROCESS		
Work Orde	er:					D	 1		61:14 to [1		🗂
Part N	lo.					Rework Scrap			Skid-tube Machining	Crosstube Small Fab	\vdash	Pro	Water Jet d. Eng. Coor.	_ ՝ ՟	ngineering Quality
NCR I	۱o. ِ					Use-as-is Work Order Update		Thern	noforming Large Fab	Finishing Composite	\blacksquare	Rec/Sto	re/Packaging Supplier		Other
Root					Descr	ription of work order update		Initial	A	ction		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ct	nief Eng	Des	cription		Date	Verification	1	QC Inspector
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		Bending				Bend		Grain			∐o	valized		Pre	ssure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route		Hardwa	re		<u></u> 0	ver/Under	tolerance	Ten	nperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Pa	art Incorred	ct	We	ld
		Crushed/0	Crimped			Burrs .		Instruct	ions Incomplete	/Unclear	Pa	art Lost/Mi	issing	Wr	ong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Pa	art Moved	'		
		Heat Trea	t		Γ	Countersink		Mislabe	eled		P	ositioned V	Vrong		
		Inspecțior	n Strip in	Tube	Γ	Cut Too Short		Misread	i		P	ower Loss/	Surge	Oth	er
,		Ripples in	Bend			Drill Holes		Offset							
·		Torque W	aves in E	xtrusio	n	Drawing		Out of C	Calibration						
		Turning Se				Finish		Out of S	Sequence		_		•		
		Wave/Tw	ist in Tub	e		Folio		Outside	Dimensions		_	,			

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

March-28-13 12:46:30 PM

Page 1

Work Order ID:

99098

Parent Item:

D4016-1

Parent Item Name:

Hinge Half, Base

Start Date: 3/27/13

Required Date: 3/27/13

Start Qty: 12.00

Required Qty: 12.00

Comments:

IPP REV:A NEW ISSUE 09-11-27 JLM VERIFIED BY :DD

IPP Rev:B as per dwg REV.A DD

10.02.22 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304B1.000X1.000		Purchased	No			100	f	3.3400	0.08	0.96		· <u>·</u> ······	
304 bar 1.00 x 1.00				Location		Loc Qty	<u>Lo</u>	oc Code		S. IT	13	-94-°)
				MAT049		3.34			159	م را .	(TOG:	aish R	TH,
	•			122	008	3.34			<u>x 5.</u>) ~	(() ()	v	

		,	
NCR:	Yes	1	No

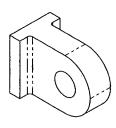
NCR: Y	es / No				WORK ORDER NON-O	CONF	ORN	MANCE / UPI	DATE			et ·
									<u></u> .	QA Closed:	Dat	te:
Work Orde	r:		···		DISPOSITION					EPARTMENT	•	
Part N	o				Rework Scrap		ľ	Skid-tube Machining	Crosstube Small Fab		Water Jet d. Eng. Coor.	Engineering Quality
NCR N	lo				Use-as-is Work Order Update	·		noforming Large Fab	Finishing Composite	_ Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Init	ial	Act	ion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief	Eng	Descr	ription	Date	Verification	n QC Inspector
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quip/Tooling												
perator	_											
/laterial												
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Other												
rocess												
iupplier												
raining												
Inapproved												
					F	AULT (CATE	GORY				
Landir	ng Gear				General					_	_	
	Bending		•		Bend	Gr	rain			Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to (o/s	BOM/Route	На	irdwa	re		Over/Under	tolerance	Temperature/Cure
[Cracks				Broken/Damaged	Ins	specti	on Incomplete		Part Incorre	ct [Weld
	Crushed	/Crimped			Burrs	Ins	structi	ions Incomplete/U	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	М	ainte	nance		Part Moved	_	
	Heat Tre	eat			Countersink	Мі	islabe	led		Positioned V	Vrong	
1	Inspecti	on Strip in	Tube		Cut Too Short	Мі	isread	l		Power Loss/	Surge	Other
	Ripples				Drill Holes	Of	fset		<u> </u>	-	•	
	Torque	Waves in I	Extrusio	ı	Drawing	Пог	ut of C	Calibration			,	
		Sequence			Finish	Пог	ut of S	Sequence				
Ì		wist in Tul		<u> </u>	Folio	Пог	utside	Dimensions				

DQA:

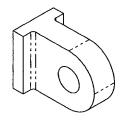
Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

D4016-1 HINGE HALF, BASE



D4016-3 HINGE HALF, LID



D4016-5 HINGE HALF, LIGHT LID



Α	NEW IS	SUE		JPH	10.01.29		
REV.			DESCRIPTION	BY	DATE		
DESIGN AJS DRAWN AJS		AJS	DART AERO	TD			
		AJS	HAWKESBURY, ONTARIO, CANADA				
CHECKED MFG. APPR. APPROVED DE APPR.		40	DRAWING NO.	-	REV. A		
		12/2	↑D4016 🌽		SHEET 1 OF 2		
		140.	TITLE		SCALE		
		#	BASKET HINGE		NTS		
DATE 10.01.29			COPYRIGHT © 2010 BY DART AEROSPACE LTD THE DOCUMENT IS SHARIF AND CONFERENCE AND ESTIMATED ON THE EXPRESS CONCIDENTIAL THE BOT TO BE USED FOR ANY THEORY OF COMMENCED TO ANY OHESE PERSON WITHOUT				

Wlo 99098

0.25 0.38+0.03 R0.38 Ø 0.257 THRU GRAIN DIRECTION 0.50 0.13 R0.03 TYP

D4016-1 HINGE HALF, BASE

GRAIN DIRECTION 0.13 0.250 0.50 R0.03 R0.31 - 0.563 -REF 0.63 Ø0.257 THRU

> **D4016-3 HINGE HALF, LID D4016-5 HINGE HALF, LIGHT LID**

DESIGN AJS		DART AEROSPACE LTD						
DRAWN	AJS	,	HAWKESBURY, ONTARIO, CANADA					
CHECKED	W	DRAWING NO.	REV. A					
MFG. APPR.	77	D4016	SHEET 2 OF 2					
APPROVED	10	TITLE	SCALE					
DE APPR.	-#	BASKET HINGE	NTS					
DATE 10.0	1.29	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIMATE AND CONTRIBUTION THAT IT IS NOT TO BE USED FOR ANY AUROSC OR COMED OF COMMUNICATED TO ANY OTHER PERSON WITHOUT						

NOTES: 1) MATERIAL -1 & -3: 304/316 STAINLESS STEEL BAR, PER ASTM A276 REF DART SPEC M304B

-5: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR, PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160) OR ASTM B211 OR ASTM B221 REF DART SPEC M6061T6B

REF DART SPEC MODITION

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

7) WEIGHT -1: 0.09 lbs

-3: 0.04 lbs
-5: 0.01 lbs

W10 99098

D

С

DART AEROSPACE LTD	Work Order:	
Description: Hinge Half, Base	Part Number:	D4016-1
Inspection Dwg: D4016 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.875	+/-0.010	.876			veren	27-4
0.25	+/-0.030	.243				
0.38	+0.030/-0.000	.388				
R0.03	+/-0.030	.03	/			
0.13	+/-0.030	-137	/			
0.88	+/-0.030	.877				
Ø0.257	+0.006/-0.001	.257				
R0.38	+/-0.030	.374	/			
0.500	+/-0.030	.500				
0.75	+/-0.030	.750				
	·					
					·	
		-				

Measured by:	Audited by:	D.A	2AC	Preliminary Approval:	
Date: 73.04-05	Date:	13/04/07	3-83 00	Date:	

Rev	Date	Change	 Revised	þ,y		Appro	ved
Α	10.06.07	New Issue	KJ C	×	}_	W	
			 	I /	J	•	